

Sgt Roy Caldwell, 50th Military History Detachment, 4 June 1997,  
I'm with Lieutenant Commander...

LCDR: Better ask yourself, right?

SGT CALDWELL: Could you give me you first, first name, middle  
initial and spell your last name?

LCDR ERIC RASMUSSEN: Sure. My first name is Eric, E-R-I-C,  
David Rasmussen is spelled R-A-S-M-U-S-S-E-N.

SGT CALDWELL: And what is your rank?

LCDR ERIC RASMUSSEN: I'm a Lieutenant Commander, Medical Corps,  
United States Navy. I'm a physician and fellow of the American  
College of Physicians, so the last part of my name is M.D., FACP.

SGT CALDWELL: And the, the M.D.FACP would indicate a particular  
specialty?

LCDR ERIC RASMUSSEN: No, well, actually it does in a very  
general sense, I'm an Internal Medicine Physician, more than an  
Internal Medicine.

SGT CALDWELL: With the United States Navy, what is your current  
assignment?

LCDR ERIC RASMUSSEN: I'm the Head of Surface Fleet Medical  
Programs, at the Naval Operational Medicine Institute in  
Pensicola, Florida.

SGT CALDWELL: And what, shoot, what are you doing in Bosnia?

LCDR ERIC RASMUSSEN: Good question, the Surface Fleet Medical  
Programs code, incorporates a number of things included the  
placement of advance medical technology in the fleet. I have a

system that was originally designed by Commander Lee Morin, to match phrases and English with recorded files from native speakers and you can address a lot of subjects using that kind of yes, no, one way translation business. And we've adapted that for land mine management at Force Protection from the normal responsibilities that that program originally had in medicine and we have deployed that to SIOPS and to Military Intelligence here in order to see how well it performs in the field in it's new garb. I'm here to follow up on that deployment and make sure we got the feed back that we need.

**SGT CALDWELL:** For that system, what, back up here a second, the, what is the active or, or how does the Navy and the Army specifically refer to the voice, the system?

**LCDR ERIC RASMUSSEN:** The system is called the Multi Lingual Interview System, the MIS. The MIS is a combination of efforts between DARPA and the Army and the Navy. (just one second, gentlemen can we keep it down just a little bit please, thank you, sorry, interview) And it was originally request from DARPA, that Navy technology be melded to the needs of the forces deploying into Bosnia, particularly for the protection against the land mine threat that was envisioned once the Springs thaw hit after the initial deployment.

**SGT CALDWELL:** Whats DARPA stand for?

**LCDR ERIC RASMUSSEN:** DARPA stands for the Defense Advance Research Projects Agency, it is the home of the Internet and home

of Star Wars, it is an organization above the level of the four services within the Department of Defense and is responsible of the introduction of practical applications and new technology. And they have an enormous research budget leading to the development of practical applications, they don't do just basic research or very little.

**SGT CALDWELL:** Within the Navy, the project with the....

**LCDR ERIC RASMUSSEN:** MIS.

**SGT CALDWELL:** MIS, thank you. What is that called or what's the project contraction?

**LCDR ERIC RASMUSSEN:** It was originally called, it was originally called the Medical Language Translator, the MLT, it was developed by a man named Commander Lee Morin, who went on to become an astronaut, he's a Mission Specialist now with NASA. But he was at one point in my job the head of CODE 53, Service Medical programs at NOME then NAME, the Aerospace Medical Institute. And he had been in Desert Storm and was having difficulty talking to his, both coalition injured and POW injured and went home and put together a system that allowed the matching of a phrase on the screen with a recorded wave file and did about 2000 medical phrases, words and phrases. The Navy gradually took that on as a responsibility and to deployed over a thousand of the CD's and up to forty-five languages in the last release and it was just after that release that we got the call from DARPA asking us to expand into questioning locals about land mines or teaching locals about

land mines or teaching coalition forces what to do when locals and say that they found land mines. So we had three phrases in the initial land mine deployment.

**SGT CALDWELL:** And that transition from straight medical application to the mine force protection application was a matter of basically just a software change over, where instead of medical questions you were asking instead of where does it hurt, you would ask where is the mine?

**LCDR ERIC RASMUSSEN:** Yes, exactly, it was very simple change. The issue was getting information that relevant, making sure that the questions that were being asked were the right questions, because as physicians we really don't know very much about the field at all, except how to in some cases fix the problems that are generated. We went to the best people we could find at Fort <sup>LEONARD</sup>~~XXXXX~~Wood, Missouri, at Quantico and JFK Special Warfare School and talked to people about what they would want to be able to ask or be able to teach and we incorporated their exact phrases and then had those recorded by native speakers, made the software recognize the link between the two and send it over in a compact package.

**SGT CALDWELL:** The compact package to be fielded and it's starting to sound like this has been fielded in a very short period of time?

**LCDR ERIC RASMUSSEN:** A matter of weeks initially.

**SGT CALDWELL:** For the initial units in the field and that would

have been back in 96?

**LCDR ERIC RASMUSSEN:** Ninety-six, about this year time last year, May of 96.

**SGT CALDWELL:** So, May of 96, you had a system in the field that was at least basically no longer being used for medical?

**LCDR ERIC RASMUSSEN:** That's correct, that particular deployment didn't have any medical phrases on it at all. There was a little bit of overlap for simple demographics, but it was not medically oriented.

**SGT CALDWELL:** So the orientation was all towards, generically where is the mine?

**LCDR ERIC RASMUSSEN:** And check points and other things that were force protection related phrases. Civil affairs, some crowd control issues, other things that people said that they needed to have in a foreign language in Bosnia.

**SGT CALDWELL:** The way I'm understanding this system is that it is, will not recognize free form voice patterns?

**LCDR ERIC RASMUSSEN:** That's correct, this is not a translation system. This is a system that is designed only to parrot phrases that are already fixed in stone. And the, whether it's the voice recognition system or it used a mouse and pen to address a touch screen, you get exactly the same phrase recorded by a native speaker every single time. You get thousands of them to choose from but you only get the one that you choose each time, there's no variation.

**SGT CALDWELL:** Even though that seems to be a limitation, it seems like the Army Civil Affairs SIOP here in Bosnia are XXXX very useful?

**LCDR ERIC RASMUSSEN:** That's the feed back that I'm getting, it is severely limited, but it's also an early implementation of the technology. And so we set our standards very low to try and meet a goal that we saw as achievable and yet useful without creating too much in the way of expectations. Those expectations have been met, the low expectations have been met and we are able to continue the technology development because we were successful in the initial fielding.

**SGT CALDWELL:** If you could describe what, what that expected goal was?

**LCDR ERIC RASMUSSEN:** We had before DARPA called, a system that you could use at a bed side that allowed you to go through the entire sequence of medical care with a patient XXX, with the patient unable to speak at all, you could do a history, a physical examination asking people to do various things in the course of the examination, you could do diagnostic radiology asking to turn various ways and cooperate in various ways in getting the radiograph taken. You could do some diagnosis explaining to them what was wrong, you could get a surgical consent, you could do preoperative care and postoperative care and then discharge. Recognizing how successful we were in developing phrases carefully that allowed us to go through that

sequence, we decided to attack the same kind of thing for force protection and land mines, assuming that the person was mute. Which means that we looked at only areas that could be effectively addressed without interaction. Which means if we wanted a detailed description of where a land mine was located, this was the wrong business. The best we could do was ask somebody to point to a map.

SGT CALDWELL: And using the map then, (resumption of tape) Couple of final thoughts or final questions. Is there anything that we covered that you didn't get to fully express any thoughts?

LCDR ERIC RASMUSSEN: No, I think it's covered clear.

SGT CALDWELL: Any thing you want to add?

LCDR ERIC RASMUSSEN: Not a thing, it's been a pleasure.

SGT CALDWELL: Well, darn we shouldn't have turned the tape back on. Thanks a lot sir, appreciate it.

LCDR ERIC RASMUSSEN: My pleasure.

AS SOON AS THIS INTERVIEW IS OVER, SGT CALDWELL IS TALKING WITH ANOTHER PERSON, IT RUNS RIGHT INTO ANOTHER INTERVIEW AS THOUGH IT WAS RECORDED OVER EACH OTHER.